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Remarks

In the Final Office Action, claims 1-3, 5-10 and 12-26 were pending, of which claims 1-3, 5-10 and 12-26 stand rejected. By this Response and Submission, all claims continue unamended and arguments address the Examiner's rejections are provided. In view of both the amendments presented above and the following discussion, the applicants submit that none of the claims now pending in the application are obvious under the provision of 35 U.S.C. §103. Thus, the applicants believe that all of these claims are now in allowable form.

It is to be understood that the applicants do not acquiesce to the Examiner's characterizations of the art of record or to applicants' subject matter recited in the pending claims. Further, applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing this submission.

Rejections

35 U.S.C. 103

The Examiner has rejected claims 1-3, 5-10 and 12-26 under 35 U.S.C. 103(a) as being unpatentable over Slattery U.S. Patent No. 6,246,701 ("Slattery") in view of Gardner et al. U.S. Patent No. 6,327,275 ("Gardner"). Specifically and with respect to independent claims 1, 7, 12 and 13, the Examiner offers that Slattery discloses a method and apparatus for processing a transport stream comprising time slots for transporting respective programs having a common time base indicated by periodically inserted time stamps comprising modifying packets associated with a desired time slot of a received transport stream to produce an output transport stream and transmitting the output transport stream, wherein the transmitted output transport stream includes respective modified programs having the common time base indicated by the periodically inserted time stamps provided by the received transport stream. The Examiner continues by indicating the Slattery does not specifically disclose the modified packet uses a matching time stamp of the received transport stream, but alleges that

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Gardener does per Col. 1, lines 7-14, Col 4, lines 30-59 and Col. 5, lines 5-13. The Examiner concludes that it would've been obvious to use a matching time stamp as taught by Gardener in the system of Slattery to maintain the timing of the packets in the received transport stream. The applicants respectfully traverse the rejection.

It is respectfully submitted that the disclosure of Gardener is insufficient to adequately teach or suggest the claimed elements identified by the Examiner. The test under 35 U.S.C. § 103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). The references must be taken in their entireties, including those portions which argue against obviousness. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 Fed. Cir. 1986). For prior art reference to be combined to render obvious a subsequent invention under 35 U.S.C. §103, there must be something in the prior art as a whole which suggests the desirability, and thus the obviousness, of making the combination. Uniroyal v. Rudkin-Wiley, 5 U.S.P.Q. 2d 1434, 1438 (Fed. Cir. 1988). Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

Specifically, applicants' independent claims 1, 7, 12, and 13 are repeated below with appropriate emphasis added:

1. A method for processing a transport stream comprising a plurality of time slots for transporting therein respective programs having a common time base indicated by periodically inserted time stamps, said method comprising:

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modifying packets associated with a desired time slot of a received transport stream to produce an output transport stream; and

transmitting said output transport stream; said transmitted output transport stream includes respective modified programs having said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream.

7. An apparatus for processing a received transport stream comprising N time slots for transporting therein N respective programs having a common time base indicated by periodically inserted time stamps, where N is an integer greater than one said apparatus comprising:

a transport clock source;

a frequency divider for dividing a timing signal from said transport clock source into N timing signals;

N transport encoders coupled to said frequency divider for respectively receiving and encoding said N programs; and

a multiplexer, coupled to an output of said N transport encoders, for receiving and modifying packets associated with a desired time slot of one or more transport encoded program streams, said multiplexer producing a processed transport stream, said processed transport stream including respective modified programs having said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream.

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12. Apparatus for processing a received transport stream comprising a plurality of time slots for transporting therein a respective plurality of programs having a common time base indicated by periodically inserted time stamps, said apparatus comprising:

- a transport clock source;
 - a frequency divider, for dividing a transport clock timing signal from said transport clock source into a plurality of timing signals; and
 - a plurality of encoders, each of said encoders coupled to said frequency divider for respectively receiving and encoding said plurality of programs to produce a respective encoded program stream, each of said encoded program streams being coupled to a switch via a respective buffer memory;
- said switch selectively coupling program stream transport packets from said buffer memories for modifying packets associated with a desired time slot to produce a slotted transport stream, said slotted transport stream including respective modified programs having said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream.

13. Apparatus for generating a transport stream comprising a plurality of programs, each of said programs having associated with it a respective time slot, said apparatus comprising:

- a frequency divider, for dividing a transport clock timing signal into a plurality of timing signals; and
- a plurality of encoders, each of said encoders encoding a program stream in response to a respective timing signal to produce a respective encoded program stream, each of said

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encoded program streams being coupled to a switch via a respective buffer memory;

said switch selectively coupling program stream transport packets from said buffer memories to produce a slotted transport stream, wherein each transport packet of each program stream is separated by a transport packet from at least one other program stream; and

said switch selectively coupling program stream transport packets from said buffer memories for modifying packets associated with a desired time slot to produce a slotted transport stream, said slotted transport stream including respective modified programs having said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream.

Gardener provides no specific description of how a modified packet uses a matching time stamp as claimed. In each instance of the Examiner's alleged teachings or suggestions found in Gardener, the language of the reference falls short. At Col. 1, line 7-14, there is no specific discussion of matching time stamps, just a very general description of bitstream extraction and recombination, "in such a way that timing delivery constraints on the extracted bitstream are obeyed." At Col. 4, line 30-59, there is no specific discussion of matching time stamps, just a very general description indicating that streams are remultiplexed so that, "decoder buffer and timing requirements are met." Control signals are sent to a multiplexer 140, "to control the outputting of the processed data streams 1,2, ...,N in a time-multilplexed manner to provide a remultiplexed data stream." At Col. 5, line 5-13, there is no specific discussion of matching time stamps, just a very general description indicating that locally available data, "may be provided to the MUX 140 at a variable rate as necessary to provide the remultiplexed data stream at a constant bit rate." Such cursory language in the reference leaves one skilled in the art with the impression that there could be any

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number of undisclosed methods (and attendant apparatus) that could perform such tasks and that this is not a point of interest, let alone distinct disclosure, for Gardener. "The (prior art) statement is of the type that gives only general guidance and is not at all specific as to the particular form of the claimed invention and how to achieve it. Such a suggestion may make an approach 'obvious to try' but it does not make the invention obvious." *Ex parte Obukowicz*, 27 USPQ 2d 1065 (citing *In re O'Farrell*, 853F.2d 894, 7USPQ 1673, 1681 (Fed. Cir. 1988)). The Examiner's citation of Gardener, while noteworthy for selection based on technical field, is simply too general to derive a specific teaching of the underlined and emphasized element in the noted independent claims.

Accordingly, if the references could somehow be operably combined, the references would merely disclose a PCR normalization process (of Slattery) where the processor schedules each transport packet to be outputted in a time slotted at a particular dispatch time corresponding to a predetermined delay in the multiplexer node, and a general remultiplexing of packets (of Gardener). Thus, neither reference, either singularly or in combination, teach or suggest "said slotted transport streaming including respective modified programs having said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream." Therefore, the combined references fail to teach or suggest the applicants' invention as a whole.

It should be noted that in the Examiner's Final Office Action, at Page 6, it was indicated the Gardener clearly shows the order of transport packets and that the order of such packets is maintained by virtue of null packets replacing "B" program packets. However, the applicant still maintains that this portion of Gardner does not, as presented earlier, provide a suggestion of what type of time stamp (if any) is applied to such null packets. Accordingly, the claimed element is not suggested or otherwise apparent to one of ordinary skill in the art.

As such, the applicants submit that independent claims 1, 7, 12 and 13 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2, 3, 5, 6, 8-10, 11, and 14-26 respectively depend

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from independent claims 1, 7 and 13 and recite additional features thereof. As such, and for the same reasons as discussed above, the applicants submit that these dependent claims also are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the applicants respectively request that the rejections be withdrawn.

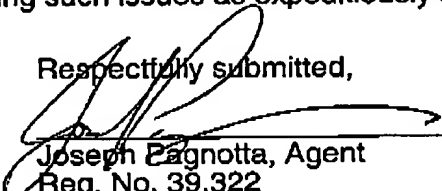
CONCLUSION

Thus, the applicants submit that none of the claims presently in the application are obvious under the provision of 35 U.S.C. §103. Consequently, the applicants believe that all these claims are presently in condition for allowance. Accordingly, reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so appropriate arrangements can be made for resolving such issues as expeditiously as possible.

April 5, 2004

Respectfully submitted,


Joseph Pagnotta, Agent
Reg. No. 39,322
(732) 530-9404

Moser, Patterson, & Sheridan, LLP
Attorneys at Law
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702

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LAURA E CRATER

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4/5/04

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